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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,924

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Thomas Ludwig

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EXAMINER

MCCALL, ERIC SCOTT

ART UNIT

PAPER NUMBER

2855

MAIL DATE

DELIVERY MODE

10/31/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,924	Applicant(s) LUDWIG ET AL.	
	Examiner Eric S. McCall	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 13-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>Sep. 06, 2006</u> . | 6) <input type="checkbox"/> Other: ____. |

**DEVICE FOR DETECTING THE COMBUSTION-
CHAMBER PRESSURE IN AN
INTERNAL COMBUSTION ENGINE**

FIRST OFFICE ACTION

CLAIMS

Obvious-Type Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned

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with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 13-27 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 13-27 of copending Application No. 10/591,881. Although the conflicting claims are not word-for-word identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

35 U.S.C. § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention.

Independent claim 13 sets forth, in the preamble thereof, a device for detecting a cylinder pressure but never sets forth, in the body of the claim or any dependent claim therefrom, anything about detecting a cylinder pressure or how a cylinder pressure is detected.

Claim 15 is indefinite as to whether the sensor or the heating pin is that which is claimed as being inside the glow plug by the fixation element.

35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-22, 24, 26, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Murai et al. (6,539,787).

With respect to claim 13, Murai et al. set forth a device (Fig. 1) for detecting a cylinder pressure in an internal combustion engine, comprising:

a glow plug including a housing via which the glow plug is mounted inside a cylinder head of the internal combustion engine, the glow plug further including at a first end (bottom of Fig. 1) a heating pin (203) that projects at least partially into a combustion chamber of the internal combustion engine when the glow plug is installed, the heating pin being affixed inside the glow plug with the aid of a fixation member (207); and

a sensor (300) situated between the fixation member and a second end of the glow plug.

With respect to claim 15, Murai et al. set forth that the sensor (300) is separated from the heating pin (203), and is at least indirectly affixed inside the glow plug by a fixation element (209).

With respect to claim 16, Murai et al. is interpreted as setting forth that the sensor (300) is at least indirectly connected to the fixation member (207) with force locking as claimed.

With respect to claim 17, Murai et al. is interpreted as setting forth that the at least indirect force locking between the sensor (300) and the fixation member (207) is implemented with prestressing as claimed.

With respect to claim 18, Murai et al. is interpreted as setting forth that the sensor (300) is at least indirectly connected to the fixation element (209) with force locking as claimed.

With respect to claim 19, Murai et al. is interpreted as setting forth that the at least indirect force locking between the sensor (300) and the fixation element (209) is implemented with prestressing as claimed.

With respect to claim 20, Murai et al. set forth that the sensor (300) is separated from the fixation member (207) by at least one spacer member (208).

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With respect to claims 21 and 24, Murai et al. suggest that the sensor (300) is separated from the fixation element (209) by at least one spacer element (Fig. 2).

With respect to claim 22, Murai et al. is interpreted as setting forth that the spacer member (208) is an intermediate sleeve as claimed.

With respect to claim 26, Murai et al. is interpreted as setting forth that the fixation element (209) is a sleeve crimped with the housing as claimed.

With respect to claim 27, Murai et al. set forth that the sensor (300) is a force sensor embodied as a piezo ring as claimed.

35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murai et al. (6,539,787).

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Murai et al. fail to teach that the intermediate sleeve is made of graphite. However, it would have been obvious to one having ordinary skill in the art armed with said teaching to make the intermediate sleeve out of graphite.

The motivation being that the intermediate sleeve is nothing more than a spacer element and graphite is a well known and commonly used material in the making of a spacer element.

CITED DOCUMENTS

The Applicant's attention is directed to the "PTO-892" form for the prior art made of record at the time of this office action.

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric S. McCall whose telephone number is (571) 272-2183.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Eric S. McCall/
Primary Examiner
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